UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,764	08/03/2006	Jan Alexis Nesvadba	DE 030123	4534

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EXAMINER
ABDALLA, KHALID M

ART UNIT	PAPER NUMBER
4173	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/552,764	NESVADBA ET AL.
	Examiner	Art Unit
	KHALID ABDALLA	4173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 October 2005*.
2a)☐ This action is **FINAL**.　　2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.
　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-12* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
　　a)☒ All　b)☐ Some *　c)☐ None of:
　　　　1.☒ Certified copies of the priority documents have been received.
　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.
　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   This application has been examined claims 1-12 are pending in this

application.

Priority

2.   Applicant's claim for the benefit of a prior-filed application under 35 U.S.C.

119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not

complied with one or more conditions for receiving the benefit of an earlier filing date

under 35 U.S.C. 371 as follows:

Priority is over 30 months .US filling date is 8/03/2006. PCT was filled on 04/14/2003.

Information Disclosure Statement

3.   The Examiner has considered the references listed on the Information

Disclosure statement submitted on 10/12/2005 (see attached PTO-1449.

Drawings

4. The examiner contends that the drawings submitted on 10/12/2005 are
acceptable for examination proceedings

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by

Moulton et al   (US 6778252 B2).

Regarding claim 1, Moulton discloses a system (I) for performing automatic

dubbing on an incoming audio-visual stream (2) (FIG. 1 is a block diagram of the audio-

visual dubbing system see FIG. 1 and drawing description)., said system (1) comprising:

means (3, 7) for identifying the speech content in the audio-visual stream (2); a speech-

to-text converter (13) for converting the speech content into a digital text format (14); a

translating system (15) for translating the digital text (14) into another language or

dialect; a speech synthesizer (19) for synthesizing the translated text (18) into a speech

output (21); and a synchronizing system (9, 12, 22, 23, 26, 31, 33, 34, 35) for

synchronizing the speech output (21) to an outgoing audio-visual stream (28) (there

have been recent developments towards automating the voice dubbing process using

2D based techniques to modify archival footage, using computer vision techniques and

audio speech recognition techniques to identify, analyze and capture visual motions

associated with specific speech utterances. Prior approaches have concentrated on

creating concatenated based synthesis of new visuals to synchronize with new voice

dub tracks from the same or other actors, in the same or other languages. This

approach analyzes screen actor speech to convert it into triphones and/or phonemes

and then uses a time coded phoneme stream to identify corresponding visual facial

motions of the jaw, lips, visible tongue and visible teeth. these single frame snapshots

or multi-frame clips of facial motion corresponding to speech phoneme utterance states

and transformations are stored in a database, which are then subsequently used to

animate the original screen actor's face, synchronized to a new voice track that has

been converted into a time-coded, image frame-indexed phoneme stream (col:1 lines

29-47).

   Regarding claim 2, Moulton discloses the system (1), containing a voice profiler

(10) for generating voice profiles (ii) for the speech content and for allocating the

appropriate voice profile (11) to the translated text (14) for speech output synthesis (The

voice recognition system generates a time-stamped annotation database of individual

frames and associated computer estimated phonemes and diphones, and the estimated

pure or mixed phoneme combination corresponding to the frame see (col: 1 lines 19-

25).

   Regarding claim 3, Moulton discloses the system (I) ,wherein the system (i)

contains a source of time data (4) for the allocation of timing information to the audio

and video contents (4, 5) for later synchronization of these contents (these single frame

snapshots or multi-frame clips of facial motion corresponding to speech phoneme

utterance states and transformations are stored in a database, which are then

subsequently used to animate the original screen actor's face, synchronized to a new

voice track that has been converted into a time-coded, image frame-indexed phoneme

stream (col:1 lines 41-47)).

Regarding claim 4, Moulton discloses the system (1), wherein the translation

system ((15) (there are many cinematic and television works where it is desirable to

have a language translation dub of an original cinematic or dramatic work, where the

original recorded voice track is replaced with a new voice track that therefore inherent

translation system see col:1 lines 15-19)contains a language database (17) with a

plurality of different languages and/or dialects and means for selection of a language or

dialect from this database (17) into which the digital text (14) is to be translated (the

elicited reference audio-visual database is then supplemented by the original target

screen footage, to be re-synchronized to another language. The computer vision tracks

and estimates the position of the control points mapped to the mouth as they move in

the target production footage see col:3 lines 50-55).

Regarding claim 5, Moulton discloses the system (1) wherein the system (1)

contains an open-caption generator (29) for the creation of open captions (30) using the

digital text (14) and/or the translated digital text (18), for inclusion in an outgoing audio-

visual stream (28) (The speech track is time-stamped to frames. (FIG. 1, Block 130 and

170). Computer voice recognition of the original recorded speech track is executed.

(FIG. 1, Block 210, 200,) The voice recognition can be additionally aided by working

with a prior known speech text transcript see col:7 lines 16-21), also (there are many cinematic and television works where it is desirable to have a language translation dub of an original cinematic or dramatic work, where the original recorded voice track is replaced with a new voice track that therefore inherent translation system see col:1 lines 15-19).

Regarding claim 6, Moulton discloses an audio-visual device comprising a system (1) (FIG. 1 is a block diagram of the audio-visual dubbing system see FIG. 1 and drawing description).

Regarding claim 7, Moulton discloses a method for automatic dubbing of an incoming audio-visual stream (2) (FIG. 1 is a block diagram of the audio-visual dubbing system see FIG. 1 and drawing description), which method comprises: identifying the speech content in the audio-visual stream (2) (using computer vision techniques and audio speech recognition techniques to identify, analyze and capture visual motions associated with specific speech utterances. Prior approaches have concentrated on creating concatenated based synthesis of new visuals to synchronize with new voice dub tracks from the same or other actors see col: 1 lines 32-37); converting the speech content into a digital text format (14); translating the digital text (14) into another language or dialect; converting the translated text (18) into a speech output (21) (the elicited reference audio-visual database is then supplemented by the original target screen footage, to be re-synchronized to another language. The computer vision tracks

and estimates the position of the control points mapped to the mouth as they move in

the target production footage see col:3 lines 50-55).; synchronizing the speech output

(21) to an outgoing audio-visual stream (28) (The result is such that the image frames

show sequential lip motion that is now visually synchronized to the new dub speech

track see col:4 lines 60-62).

   Regarding claim 8, Moulton discloses the method, wherein voice profiles (ii) for the

speech content are generated and allocated to the appropriate translated text (18) in the

synthesis of speech output (21) (The voice recognition system generates a time-

stamped annotation database of individual frames and associated computer estimated

phonemes and diphones, and the estimated pure or mixed phoneme combination

corresponding to the frame see (col: 1 lines 19-25)).

   Regarding claim 9, Moulton discloses the method ,wherein a copy of the speech

content is diverted from the audio-visual stream (2) or from an audio content of the

audio-visual stream (2) (using computer vision techniques and audio speech

recognition techniques to identify, analyze and capture visual motions associated with

specific speech utterances. Prior approaches have concentrated on creating

concatenated based synthesis of new visuals to synchronize with new voice dub tracks

from the same or other actors see col: 1 lines 32-37) also (For commonly used speech

transformations, commonly used spine based curve fitting techniques are applied to

estimate and closely match the recorded relative spatial paths and the rate of relative

motions during different transformations. The estimated motion path for any reference

point on the face, in conjunction with all the reference points and rates of relative motion

change during any mouth shape transformation, is saved and indexed for later

production usage see col:3 lines 8-16).

   Regarding claim 10, Moulton discloses the method ,wherein the speech content in

the audio-visual stream (2) is separated from the remaining audio-visual stream or from

an remaining audio content of the audio-visual stream (2) (the automatically

incorporated viseme offsets to control vertices may contain emotional or other non -

speech expressive content and shape. The degree of viseme offset may be given a

separate channel control in a multi-channel mixer approach to animation control. Thus,

any radar measurement motion tracking of the lip position may be separated into

discreet component channels of shape expression see col: 6 lines 37-44).

   Regarding claim 11, Moulton discloses the method ,_wherein an audio/video

combiner (26) inserts the speech output (21) into the outgoing audio-visual stream (28),

replacing the original speech content (approaches have concentrated on creating

concatenated based synthesis of new visuals to synchronize with new voice dub tracks

from the same or other actors, in the same or other languages. This approach analyzes

screen actor speech to convert it into triphones and/or phonemes and then uses a time

coded phoneme stream to identify_corresponding visual facial motions see (col:1 lines

35-40).

Regarding claim 12, Moulton discloses the method, wherein an audio/video combiner (26) overlays the speech output (21) into the outgoing audio-visual stream (28). (Producing composite visemes on the fly. This is accomplished by means of using continuous dub speaker radar measurement, or applying actor speech facial motion tracking techniques, or using multi-channel character animation techniques, such as used in Pixels3D see (col:5 lines 34-39)

The viseme CV fixed reference control points are exactly registered to the original screen actor facial position for the eyes and nose position, to place them exactly to the head position, scaled to the correct size. The moving and scaling and positioning actions are done manually using standard 3D computer graphics overlay and compositing tools see col: 4 lines 19-25).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(US 6919892 B1), (Cheiky et al) discloses, Photo realistic talking head creation system and method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHALID ABDALLA whose telephone number is (571)270-7526. The examiner can normally be reached on MONDAY THROUGH FRIDAY 7 AM TO 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, JINHEE LEE can be reached on 571-272-1977. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. A./
Examiner, Art Unit 4173

/Jinhee J Lee/
Supervisory Patent Examiner, Art
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